

REMARKS

Allowance of this application is respectfully requested in light of the above amendments and the following remarks.

The Applicants wish to thank the examiners for the courtesy shown to their representatives during a personal interview on June 30, 2010. The participants were Examiner Ping Hsieh, SPE Yuwen Pan, Takashi Ishihara, and the undersigned. The issues and claims discussed were the same as those addressed in the Amendment filed June 1, 2010. A summary of the substance of the interview is included in the comments below.

Agreement was reached during the interview in that the examiners agreed that the presently applied prior art references do not teach or suggest the subject matter of above-amended independent claims 27 and 30, or new claims 37 and 38, and that the application would be allowed pending an updated search.

It was noted during the interview that the Advisory Action of April 26, 2010 stated that the features argued in the Response filed April 1, 2010 are not recited in the claims. The amended claims filed June 1, 2010 addressed this point.

Claim 27 is amended herein to recite that the uplink resource comprises at least one of a frequency resource and a spreading code resource. This is supported, for example, at paragraphs [0029], [0030], [0090], [0092], [0111], [0113], [0121], [0123] and [0125] of the published application. The subject matter of new claims 37 and 38 is supported, for example, by [0030] and Figs. 1 and 2 of the published application. New dependent claims 39 and 40 are supported for example by paragraph [0044] of the published application. (It should be noted that references herein to the specification and drawings are for illustrative purposes only and are not intended to

limit the scope of the invention to any particular aspect of the referenced embodiments.)

During the interview, it was noted that an advantage of the present claimed invention results from the simultaneous transmission of the first allocation information indicating the uplink resource and second allocation information which is downlink resource allocation information and which indicates a destination of the user data (claims 27 and 30) and the modulated power information (claim 33). If either the first or the second allocation information has an error, a retransmission would be needed. It can be seen that, if they are transmitted separately, the number of retransmissions would increase. By transmitting the first and second allocation information simultaneously, a reduced number of retransmission will result. The Office Action cited paragraph [0044] of Li against Applicants' subject matter of claim 27 "second allocation information which is downlink resource allocation information indicating a destination of the user data" and "a transmitting unit configured to simultaneously transmit the modulated first allocation information and the modulated second allocation information on a control channel and configured to transmit the user data on a user channel." The Office Action alleged that Li's allocation corresponds to both the claimed first and second allocations.

However, as noted during the interview, in fact, Li fails to disclose or suggest either of the first and second allocations of claim 27.

Instead, Li discloses an OFDMA system providing subcarrier allocation for data traffic channels for a specific UE. Li discloses allocation of a frequency resource. Paragraph [0044] states: "After cluster selection, the base station notifies the subscriber about the cluster allocation through a downlink common control channel or through a dedicated downlink traffic channel if the connection to the subscriber has already been established (processing block 105). In one

embodiment, the base station also informs the subscriber about the appropriate modulation/coding rates." Li does not provide for allocation of a control channel. Instead, the control channel is fixed. (See paragraph [0036] of Li).

The Office Action argued that, in Li, when the base station notifies the mobile station of the downlink subcarrier allocation for that UE, this inherently includes an indication of a destination of user data from the BS to the notified MS. However, as agreed during the interview, Li's subcarrier allocation indicates a destination of subcarrier allocation, but is silent as to identification of a destination of user data. Although Li's subcarrier allocation includes "downlink resource allocation information," this does not include an indication of a destination of the user data. As noted during the interview, Parantainen also lacks any teaching or suggestion of this subject matter. Thus, for at least this reason, it was noted during the interview that the claimed invention is allowable over the teachings of Li and Parantainen.

Points made during the interview regarding Li are summarized as follows: (1) Li is silent as to an ACK/NACK uplink resource allocation for the UE to transmit the ACK/NACK signal; (2) Li discloses downlink subcarrier allocation for a downlink data channel but no allocation of a downlink control channel; (3) Li does not disclose uplink subcarrier allocation for an uplink control channel; (4) Li therefore does not provide for simultaneous transmission of first and second allocation information on a control channel as in claim 27; and (5) Li is silent as to identification of a destination of user data to be transmitted on the user (traffic) channel.

It was particularly noted that the Office Action acknowledged that Li does not disclose uplink resource allocation information for transmitting an ACK/NACK signal from the MS to the BS.

In an attempt to cure this deficiency, the Office Action stated that Parantainen discloses in Fig. 4 that a base station sends to the mobile station "information on the uplink channel to be used for acknowledgements and other signaling."

It was noted during the interview that Parantainen relates to GPRS using TDMA, and Parantainen does not disclose allocation of an uplink frequency allocation or spreading code for acknowledgements, but rather allocates TDMA time slots.

It was further noted that, in Parantainen, the base station informs the mobile station of an uplink control channel (slot) to be used for acknowledgements, and the downlink control message for assigning a downlink packet data channel may include information on the uplink control channel. However, Parantainen does not disclose "second allocation information which is downlink resource allocation information and which indicates a destination of the user data" as set forth in Applicants' claim 27.

It was noted that Wang does not cure the above-noted deficiencies of Li and Parantainen.

It was further noted that, against claims 33 and 34, the Office Action cites Kahn. But Khan merely discloses a mobile station that sends a CQI with packet data to the base station. The base station modifies transmission power of ACK/NACK based on the CQI. However, a CQI is a channel quality indicator and not "transmit power information" as recited in claims 33 and 34. It was noted that, even if the teachings of Li, Parantainen and Kahn were combined, the result would merely be transmitting a subcarrier allocation and uplink control channel for ACK/NACK on a control channel, and transmitting a CQI with packet data on user channel. But this combination would lack, and there would be no teaching or suggestion of, simultaneously transmitting the modulated first allocation information, the modulated second allocation

information and the modulated power information on the control channel, as in claims 33 and 34.

Accordingly, as agreed during the interview, the teachings of Li, Parantainen, Wang and Khan, even if combined as proposed in the Final Rejection and Advisory Action, still would lack the above-noted features of claim 27 and thus these references, considered individually or in combination, do not render obvious the subject matter now defined by claim 27. Independent claim 30 now similarly recites the above-mentioned subject matter distinguishing apparatus claim 27 from the applied references, but with respect to a method. Therefore, allowance of claims 27 and 30 and all claims dependent therefrom is considered to be warranted.

In view of the above a Notice of Allowance is respectfully solicited.

If any issues remain which may best be resolved through a telephone communication, the Examiner is requested to telephone the undersigned at the local Washington, D.C. telephone number listed below.

Respectfully submitted,

/James Edward Ledbetter/

Date: July 14, 2010  
JEL/att

James E. Ledbetter  
Registration No. 28,732

Attorney Docket No. 009289-05198  
Dickinson Wright PLLC  
1875 Eye Street, NW, Suite 1200  
Washington, DC 20006  
Telephone: (202) 457-0160  
Facsimile: (202) 659-1559

DC 9289-5198 156511